



DISTRIBUTED ENERGY FOR SOCIAL HOUSING

TYPE: MITIGATION

SECTOR: BUILDINGS, ELECTRICITY/POWER, FINANCIAL SERVICES, URBAN DEVELOPMENT

GEOGRAPHY: BRAZIL

LAB CYCLE: 2018

PROPONENTS: ENDLESS AB

Scaling up distributed solar power in Brazil can not only help the country achieve its climate targets, but can also provide increased energy access to low-income communities. However, low-income tenants typically lack the upfront capital required to purchase distributed solar systems. In addition, commercial lenders see low-income borrowers as higher risk, inhibiting their access to credit.

The Distributed Energy for Social Housing Fund (DESH) is a financial solution that can accelerate distributed solar power for low-income tenants in Brazil. It is a third-party ownership and rental model that would provide a robust legal and financial structure that is attractive and low-risk for investors, and would lower energy expenses for the tenants.

The Distributed Energy for Social Housing Fund (DESH) is a third-party ownership and rental model for distributed solar systems in low-income condominiums in Brazil. It provides a robust, low-risk structure for investors, and energy cost savings for the low-income tenants.

INNOVATION

DESH is the only financing option in Brazil that enables distributed energy at feasible rates that match the lifetime of solar projects.

DESH will pose no upfront costs for low-income households, providing a 10-20% discount on energy bills from day one. Also, because DESH is a rental model, low-income households aren't charged any interest rates and don't have operations and maintenance responsibilities.

In addition, DESH has a robust legal and financial structure that is set up to minimize risks to investors, like payment default. In the event of default, DESH has the ability to reallocate energy credits within 90-120 days among its clients.

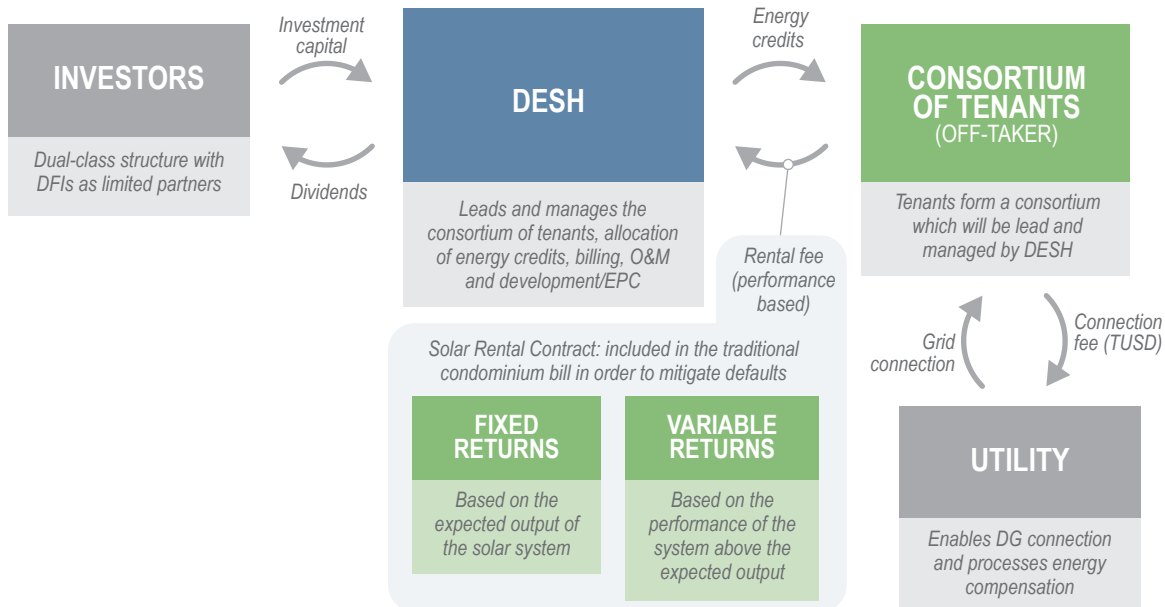
The 5 MW pilot has the potential to provide affordable clean energy to 2,900 low-income households, with monthly savings of 10%. In the next twelve years, DESH can scale up to 1,125 MW, reaching 677,901 households.

IMPACT

The DESH pilot will consist of 5 individual 1 MW projects, resulting in:

- US\$ 6 million of investment
- Affordable renewable energy for 2,900 low-income households, with monthly savings of 10%
- Mitigation of 105,000 tons of carbon emissions throughout the pilot's lifetime, or 17 tons for carbon for each US\$ 1,000 invested

In the next twelve years, DESH has the potential to reach 677,901 households, enabling 1,125 MW of energy and mobilizing US\$ 1.1 billion.



DESIGN

The Distributed Energy for Social Housing Fund (DESH) is a third-party ownership and rental model for distributed solar systems in low-income condominiums, that will pose no upfront costs to the tenants. Tenants will only pay a monthly rental fee that is 10-20% lower than their standard utility rate and will bear no risk related to procurement, operations & maintenance costs. It provides potentially attractive

investment opportunities for the implementation of these systems and through that is able to fund 100% of the distributed generation projects with no Brazilian local content requirements for the equipment, no guarantee requirements, and terms that match the lifetime of the projects.

TEAM



EDUARDO RECHDEN

CEO, ENDLESS AB



FREDERICO MEINHARDT

CEO, E-GAS

INVESTMENT OPPORTUNITIES

TYPE	ROLE OF CAPITAL	AMT.
DFI EQUITY	Provide financial cushion for leverage	\$1.5 M
PRIVATE DEBT	Second-loss debt at market rates	\$1.8 M

The Brasil Innovation Lab for Climate Finance identifies, develops, and supports implementation of transformative climate finance instruments that can drive funds for Brazil's national climate priorities. The Brasil Lab is one of the initiatives that was initially launched under the auspices of the Brazil-U.S. Climate Change Working Group, led by the Brazilian Ministry of Foreign Affairs and the U.S. Department of State. Climate Policy Initiative serves as Secretariat.